**GCSE – A Level Bridging Materials 2**

**These are all questions that you should be able to answer.**

**1.** (a) Complete the table for *y* = *x*2 – 3*x* + 1

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| *x* | –2 | –1 | 0 | 1 | 2 | 3 | 4 |
| *y* | 11 |  | 1 | –1 |  | 1 | 5 |

(2)

(b) On a set of axes draw the graph of *y* = *x*2 – 3*x* + 1

(2)

(c) Use your graph to find an estimate for the minimum value of *y*.

*y* = …………………… (1)

(Total 5 marks)

**2.** A straight line has equation *y* = 4*x* – 5.

1. Find the value of *x* when *y* = 1.

*x* = ……………………

(2)

(b) Write down the equation of the straight line that is parallel to *y* = 4*x* – 5 and passes through the point (0, 3).

………………………………

(2)

(c) Rearrange the equation *y* = 4*x* – 5 to find *x* in terms of *y*.

*x* = ………………………….

(2)

(Total 6 marks)

**3.** (a) List all the possible integer values of *n* such that

–2 ≤ *n <* 3

.....................................

(2)

(b) Solve the inequality

4*p –* 8 < 7 – *p*

.....................................

(2)

(Total 4 marks)

**4.** (a) Solve  = 4 + *x*

*x* = ....................

(3)

(b) Simplify fully 

........................................

(3)

(Total 6 marks)

**5.** Make *u* the subject of the formula

*D* = *ut* + *kt*2

*u* = ...................................

(Total 2 marks)

**6.** Work out



Give your answer in its simplest form.

.................................................

(Total 3 marks)

1. a) Write  in the form 

........................

(Total 2 marks)

b) Hence or otherwise solve the equation 

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(Total 2 marks)